

SYSTEM AND METHOD FOR ADJUSTABLE DISCONNECTION SENSITIVITY  
FOR DISCONNECTION AND OCCLUSION DETECTION  
IN A PATIENT VENTILATOR

ABSTRACT OF THE DISCLOSURE

5 The system and method for detecting disconnection and occlusion of a  
tubing system of a patient ventilator detects disconnection of the tubing system, opens the  
exhalation valve, delivers an idle flow of breathing gas to the tubing system, disables  
breath triggering, and generates an alarm. A reconnection of the tubing system can also  
10 be detected, to initiate resumption of pressure supported inspiration. For occlusion  
detection, the pressure drop in the tubing system is determined by pressure sensors in the  
inspiratory and expiratory airways of the tubing system. The two pressure drop values are  
compared, and once occlusion is detected, an alarm is generated, and the ventilator  
responds to protect the patient from over distension. Abatement of the occlusion can also  
be monitored in a pressure based occlusion status cycling mode, and the ventilator can  
revert back to normal ventilation when either circuit occlusion or exhaust port occlusion  
are not detected.